UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 7
11201 Renner Boulevard
Lenexa, Kansas 66219

MAY 1 8 2015

Mr. Dennis W. McKinney
Corporate Director Environmental, Health and Safety
Fortune Brands Home and Security
25300 Al Moen Drive
North Olmstead, Ohio 44070

RCRA
536285

RE: RCRA Facility Investigation Update, Former Waterloo Industries Facility
300 Ansborough Avenue, Waterloo, Iowa
RCRA ID No. IAD005277959

Dear Mr. McKinney:

The U.S. Environmental Protection Agency has reviewed the subject document, received April 23, 2015, and provides the following comments:

General Comments

1. In an email to you dated January 23, 2015, giving notice to proceed with the revised RFI report, the EPA indicated that the document should include an "*Updated conceptual site model; both in terms of the geology, hydrology and three-dimensional contaminant distribution within all media at the site, and in terms of exposure pathways and receptors. In particular, the CSM must be able to identify source areas and explain the observed distributions of contaminants in alluvial and bedrock aquifers, including high TCE in bedrock well MW-17. A graphical representation of the physical aspects of the CSM is warranted.*" While this document includes the necessary geologic, hydrologic and laboratory analytical data to create such a CSM, it was not provided as requested. It appears that Figures 5-8 through 5-12 form the nucleus of such a CSM, and should be annotated with the remaining requested information and discussed in Section 6.3. Please revise the document to include the requested CSM.

2. In the same email communication, the EPA requested an "*Updated and expanded discussion of geology and hydrology (Section 3.6 of the 2012 RFI Report) using data from all new wells, with particular focus on groundwater flow directions and any seasonal variations in those directions, and their relationship to the adjacent Cedar River. The EPA notes in the April and May 2014 bedrock groundwater contour maps provided by ERM a possible "saddle" or "ridge" in the groundwater surface northeast of the building in the area of MW-6, -15 and -26 that may contradict the previous determination of groundwater flow direction in bedrock as southerly. This area of possible flow reversal must be explained and its effects on hydrogeology taken into account in the CSM. As appropriate and available, local and regional geology and hydrology information should be incorporated into this discussion.*" This document does not include the requested discussion and

explanation of the possible "saddle" or "ridge." Please revise the document to include the requested discussion and explanation. A brief discussion of whether the Cedar River is a gaining or losing stream near the site is also warranted.

3. In the same email communication, the EPA requested an "*Evaluation of any apparent trends in contaminant concentrations and/or contaminant migration over the course of the RFI investigation's multiple sampling events.*" While the results of each individual event are provided and summarized, the requested trend evaluation was not provided. Please revise the document to include the requested groundwater contaminant concentration trend evaluation.

Specific Comments

1. Sect. 2.5.1, page 22: The first sentence indicates 28 sub-slab vapor points have been installed, but the referenced Figure 2-5 only shows eight. The text and figure must be reconciled.

2. Section 3.6.3, page 44: The average hydraulic gradient of 1.1x10-3 cm/s used in third paragraph on this page is inconsistent with the average calculated in the 2nd paragraph of 6.9x10-4 cm/s. This discrepancy must be reconciled. In addition, due to observed variations in hydraulic conductivity and the uncertainties discussed here, it is appropriate to report a range of groundwater velocities for both bedrock and unconsolidated materials rather than a single value for each.

3. Section 4.2.4.1, bullet "a", page 49: Window air conditioners do not generally pressurize the rooms that they cool. By design, they have separate air circulation paths for the inside and outside heat exchanger coils. Unless there is pressure differential measurements available documenting that this air conditioner is indeed maintaining a positive pressure in the supervisor's office, this assertion must be removed.

4. Section 4.2.4.1, page 50: None of the current products or processes described in this section was conclusively demonstrated to be the source of trichloroethylene in indoor air samples collected from the supervisor's office. The statement made here that the elevated TCE detections "... can be attributed to current operations of the plant, not the former operations of Waterloo Industries" is not supported by the evidence. As the supervisor's office is over the perched zone and bedrock zone volatile organic compound (VOC) plumes (Figures 5-3 and 5-4) and is a fully enclosed space, it appears that the groundwater plume is the source of the elevated TCE detected there. The text should be revised accordingly.

5. Section 4.3.1, page 52: This section discusses soil sample SB-12(0.5-2) which exceeded the groundwater protection screening level for tetrachloroethylene (PCE) in an area where PCE is present in groundwater; however, Section 5.1.2 states that "... residual soil contamination ... is not contributing to groundwater contamination in this area." These sections must be reconciled and the possibility of a separate soil source area for PCE around MW-12 must be considered.

6. Sect. 5.2.1, page 55: Although the available soil analytical data for VOCs found few exceedances of the groundwater protection screening levels in soil samples from AOC-5, photoionization detector (PID) readings from several borings (particularly DP-04, DP-08 and SB-29, see Appendix B) indicate an area of soil contamination more than 50 feet long. In addition, the very high PCE concentrations in groundwater at MW-9 and in sub-slab soil vapor at WSVS-2R suggest the

presence of a dense non-aqueous phase liquid (DNAPL) source in the subsurface at or near these sampling locations. This likely source material should be discussed here as it pertains to soil, in Section 5.3 as it pertains to soil vapor and in Section 5.5.1 as it pertains to groundwater.

7. Section 5.4, fourth paragraph, page 58: See specific comment 4 above.

8. Section 5.5.1, page 59: This section should discuss the regional bedrock groundwater flow direction and compare it to the flow direction calculated from the on-site wells.

9. Section 5.5.2, page 60: See general comment 2 above. Also, this section should indicate that access to install additional monitoring wells north of MW-12 and MW-13 is limited by Highway 218.

10. Section 6.2.1.5, page 84: This section should include more information on the public water supply well to the southwest of the site, including its rated capacity in gallons per minute and recent publicly-available sampling results of the well water. In addition, it is difficult to reconcile the off-site well information provided here, in Table 6-2, on Figure 6-2, and in Appendix I due to the wide variety of data sources and formats. Please consider simplifying the presentation of this data for ease of use and to ensure the completeness and accuracy of the well locations.

11. Section 6.2.2.2, page 86: The figure of 765 feet quoted here appears to be in error and should be corrected.

12. Section 6.3.2, page 87: Construction workers could potentially be exposed to contaminated groundwater by incidental ingestion and dermal contact if excavation is necessary in the vicinity of monitoring wells MW-1 and MW-2. This exposure pathway must be included here and in the conceptual site model on Figure 6-3.

13. Section 7.1, second bullet, page 90: See specific comment 6 above. The presence of a soil or DNAPL source should be mentioned here as a continuing source of the perched groundwater impacts.

14. Section 7.1, third bullet, page 90: The meaning of the "suspected previous incidental releases" mentioned here is not clear, and this term was not previously discussed in the text. This must be clarified.

15. Section 7.1, fifth bullet, page 90: See specific comments 3 and 4 above. This bullet must be corrected.

16. Figures 5-5 and 5-6: These figures show identical concentrations in the bedrock monitoring wells, even though they are contoured differently and are supposed to represent two different sampling events. The figures must be revised to include the correct data for each event.

17. Figure 5-7: Since many of the bedrock wells were not sampled in the April 2014 event, the isoconcentration contours drawn on this figure are not supported by the available data. These contours should be removed.

18. Appendix B: The boring logs for MW-23 through MW-28 do not include any PID readings or laboratory sample information. If available, this information should be included here.

Please provide change pages addressing these comments within 30 days of your receipt of this letter. As suggested in the document, the EPA is willing to hold a meeting at your convenience to discuss these comments with you and the next steps for the RCRA process at the facility. If you have any questions, please call me at (913) 551-7324.

Sincerely,

Daniel Gravatt, P.G.
RCRA Corrective Action and Permitting Section
Waste Remediation and Permits Branch
Air and Waste Management Division

cc: Mark Seaman, ERM
Larry Corkery, Corkery Industries, Inc.
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